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TWO NEW RODENTS FROM COSTA RICA

BY WILFRED H. OSGOOD

Mr. C. F. Underwood, who has made so many contributions to the knowledge of the fauna of Costa Rica, has recently sent to Field Museum several small collections of mammals from that country. Due to his skill as a collector and his knowledge of local conditions gained during a long residence in Central America, he has obtained a number of interesting records as well as two undescribed rodents.

One of the new forms is a pocket gopher of quite unusual character and the other a southern representative of a little-known group of leaf-eared forest rats. They may be described as follows:

Macrogeomys underwoodi sp. nov.

Type from Alto de Jabillo Pirris, between San Geronimo and Pozo Azul, western Costa Rica. No. 35175 Field Museum of Natural History. Adult female. Collected April 23, 1931, by C. F. Underwood. Orig. No. 406.

Diagnosis.—Allied to *M. cherriei* and *M. c. costaricensis* of eastern Costa Rica, but differing strikingly in the absence of white on the head and in the possession of a broad band of pure white across the lumbar region and thence less distinctly across the abdomen. Skull similar in general characters but slightly smaller with rostrum markedly narrower.

Color.—Upper parts including head, shoulders, and middorsal region rich, dark brown, almost blackish (nearest Vandyke Brown, but darker); rump and base of tail similar but slightly paler with a slight hoariness due to the presence of a varying number of exserted pale hairs; band across lumbar region sharply defined, 13 to 22 mm. in width, pure white to roots of hairs, passing in front of the hind legs (where it tends to be discontinuous) and spreading irregularly across the abdomen; under parts abruptly paler than the upper parts but, except in the region of self-colored white hairs, much darker than in *M. cherriei*; throat, breast, and inguinal region rather thinly haired, pale cinnamon brown lightly washed with hoary; fore and hind legs all around mainly like under parts; whiskers and a limited area at their bases whitish; tail and feet practically nude, light-colored; claws light-colored.

Skull.—Generally similar to that of *M. cherriei* but smaller and lighter with the rostral or naso-maxillary region conspicuously narrower; incisors weaker and narrower; maxillary tooththrow shorter; nasals much compressed behind; posterior endings of premaxillaries expanded, not pointed, behind; incisive capsule of mandible more inflated than in *cherriei*; angular process of mandible weaker and less projected laterally; maxillary-squamosal union complete above jugal.

Measurements.—Type, measured by collector: total length 280; tail 92; hind foot (s. u.) 35. Skull of type: basal length 51.3; basilar length 44; zygomatic width 33.2; width between postorbital processes 14.7; interorbital constriction 8.9; width of rostrum in front of zygoma 10.9; length of nasals 18.2; diastema 20.9; alveolar length of upper tooththrow 11.2.

Remarks.—The extraordinary white markings of this species are attested by three specimens in which there is but slight variation. They consist of the type which is a full-grown adult female, a sub-adult female of nearly the same size, and a half-grown young, also female. In the type, the white belt is continuous on the right side, but is slightly interrupted on the left in the vicinity of the boundary between the upper and lower parts where it is reduced to a few scattered white hairs. In the second female there is similar interruption on both sides, and in the young the white band completely encircles the body. It seems highly improbable, therefore, that the marking is abnormal.

A smaller white area, in this case on the top of the head, is found in *M. cherriei*, *M. c. costaricensis* and *M. matagalpae* and is quite symmetrical in a number of specimens from different localities. The occurrence of definite areas of white may thus be regarded as one of the evidences of affinity between these forms and *underwoodi*. Disregarding the white, however, the new form is easily distinguishable from *cherriei* by its general color and cranial characters. *M. cherriei* is represented in Field Museum by two specimens from Jimenez. The type of *cherriei* was from Santa Clara and that of *costaricensis*, which does not differ in color, was from Pacuare. All these localities are in eastern Costa Rica well removed from the region occupied in the west by *underwoodi*. *M. matagalpae* of Nicaragua, still farther away, also belongs to the group with a white crown patch. Mr. Underwood designates the exact situation of Alto de Jabillo as "a little *vivienda* of some half dozen shack houses between San Geronimo and Pozo Azul. From this spot a beautiful view is

secured of the Rio Grande de Pirris below and farther the Llanuras de Pirris, and beyond, the sea coast."

Ototylomys phyllotis australis subsp. nov.

Type from San Geronimo, near Pozo Azul de Pirris, western Costa Rica. No. 35177 Field Museum of Natural History. Sub-adult male. Collected April 17, 1931, by C. F. Underwood. Orig. No. 313.

Diagnosis.—Similar in color to *O. guatemalae* and *O. fumeus*; tail about equal to or shorter than head and body; skull similar, but audital bullae smaller actually and relatively; teeth slightly smaller.

Color.—Upper parts dull Hair Brown; sides of body between flanks and shoulders with hairs tipped with grayish white mixed with brownish; under parts and inner sides of legs pure white to roots of hairs.

Measurements.—Type, measured by collector: total length 242; head and body 123; tail 119; hind foot 26; ear 21. Skull of type: basal length 32; zygomatic width 18.2; mastoid width 13.5; inter-orbital constriction 6.5; diastema 9.1; length of audital bulla 5.5; upper toothrow 6.8.

Remarks.—This is probably a slight form closely related to *fumeus*, *guatemalae* and *phyllotis*, all of which seem to belong in one series distinguished from each other by characters usually of no more than subspecific importance. The light area on the sides shown in the single Costa Rican specimen is not present in a specimen of *guatemalae* from Honduras with which it has been compared, but without a series showing variations in pelage, its importance is difficult to estimate. At present, therefore, the principal distinction of the new form is the reduced size of its audital bullae.

In the type and only specimen the skin of the upper side of the hind feet has been largely destroyed by ants, but what remains seems to indicate that the feet may be lighter-colored than in the northern forms. Specimens of *O. fumeus* kindly loaned by the American Museum of Natural History show that form to be much larger.

San Geronimo is "some half hour's walk before descending to Pozo Azul de Pirris" and "about 1,000 feet higher than the Rio Grande." Mr. Underwood's headquarters here were at the hacienda of Don Roberto Wille within a dozen miles of the Pacific Ocean.

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